

**origin:** United States. **origin institute:** Agricultural Research Service -- USDA, University of Missouri, Curtis Hall, Rm. 210, Columbia, Missouri 65211. **cultivar:** Kitale II (R11)C6. **pedigree:** Source materials include Hickory King, (Natal) White Horsetooth, Ladysmith White, Champion White Pearl, and Iowa Silver Mine imported from South Africa. **remarks:** Six cycles of reciprocal recurrent selection with EC 573 (R12) Cn as tester with high yield and disease resistance (*Helminthosporium turcicum* and *Puccinia sorghi*) as selection criteria. High level of resistance appears multigenic for both diseases. Maturity is extremely long season with very high ear and plant height. Breeding Material. Seed.

PI 543742 to 543747. *Helianthus* hybrid ASTERACEAE

**Donated by:** Miller, J.F., Agricultural Research Service -- USDA, Northern Crops Science Lab., P.O. Box 5677, Fargo, North Dakota, United States; and North Dakota Agr. Res. Sta.. **remarks:** Three Cytoplasmic Male Sterile and Three Restorer Sunflower Germplasm Lines. Received August 27, 1990.

PI 543742 **origin:** United States. **origin institute:** Agricultural Research Service -- USDA, Northern Crops Science Lab., P.O. Box 5677, Fargo, North Dakota 58105. **cultivar:** cmsHA 89(PET2). **pedigree:** BC8 lines of HA 89 with cytoplasm from CMG-1. **other id:** GP-129. **group:** CSR-SUNFLOWER. **remarks:** Cytoplasmic male sterile line to provide cytoplasmic diversity. Morphologic and agronomic characteristics indistinguishable from HA 89 except rudimentary anthers which shed no pollen. Spring Annual. Breeding Material. Seed.

PI 543743 *Helianthus annuus* L. ASTERACEAE  
**origin:** United States. **origin institute:** Agricultural Research Service -- USDA, Northern Crops Science Lab., P.O. Box 5677, Fargo, North Dakota 58105. **cultivar:** cmsHA 89(GIG1). **pedigree:** BC8 lines of HA 89 with cytoplasm from CMG-2. **other id:** GP-130. **group:** CSR-SUNFLOWER. **remarks:** Cytoplasmic male sterile line to provide cytoplasmic diversity. Morphologic and agronomic characteristics indistinguishable from HA 89 except rudimentary anthers which shed no pollen. Spring Annual. Breeding Material. Seed.